Heavy-duty Natural Gas Fleet SUCCESS STORIES

Clean Cities International

Clean Cities International compiled by:
Gladstein & Associates, LLC - a consulting firm to the DOE Clean Cities Program

City of Lake Jackson

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The City of Lake Jackson operates a fleet of around 100 pieces of equipment including pickups, solid waste trucks, construction equipment, and dump trucks. The City has been considering a move toward alternative fuels for some time and in 2001 purchased 6 dedicated CNG pickups. The City of Lake Jackson is interested in CNG as a fuel because it has clean burning characteristics, it lessens our dependence on traditional fuels, and it promotes a prominent Texas industry.

The City of Lake Jackson intends to replace its entire light duty pickup fleet with CNG powered units, and will replace 4 pickups this year. They are also looking at opportunities to expand the use of CNG into their heavy-duty truck fleet because heavy-duty applications will offer the most significant environmental improvements. They are currently in the process of replacing one of their residential garbage trucks with a CNG unit.

Dallas Fort Worth International Airport

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Compressed natural gas is the predominant fuel source at DFW along with some propane and electric fueled units. CNG fuel is obtained primarily from a privately owned, public access natural gas refueling station located on the airport. Propane units utilize standard

propane tanks, which are procured/refilled directly from a propane fuel vendor. Electric vehicles utilize a rapid-recharging system installed in parking areas dedicated for these units.

The Dallas/Fort Worth International Airport Board employs 169 Alternative Fueled Vehicles in a wide variety of applications. These vehicles include buses, dual fuel engine vehicles, a CNG sweeper, dump-trucks, mowers, propane powered forklifts, dedicated CNG police units, Honda Civic GX sedans, Ford Crown Victoria sedans, Ford dedicated CNG pickups, passenger and cargo vans, Ford Ranger EV pickups, and gas/electric hybrid sedans. DFW fleet vehicles perform applications necessary to operate, maintain, and develop a major air transportation hub. The AFVs listed perform in virtually all fleet applications at DFW including shuttle buses, fuel transport vehicles, sweepers and scrubbers, dump trucks, riding mowers, forklifts, tugs, police units, transport tactical squads, administration, security, and maintenance.

Virtually all of DFW's AFVs have been deployed within the last three years, and vehicle reliability and operator acceptance has exceeded expectations. The combination of purchase price buy-downs, fuel savings, and high reliability have generated substantial unit operating cost savings on a life-cycle basis. An added benefit of the program for vehicle users has been the rapid retirement of conventionally fueled vehicles and replacement with new AFV models. DFW's aggressive schedule for AFV acquisition and deployment has exceeded the requirements of the Texas Clean Fleet Program, resulting in the generation of Program Compliance Credits for the Board's use.

DFW's commitment to the deployment of AFVs is driven principally by regional air quality considerations. DFW is committed to taking a leadership role in addressing air quality issues in its region and industry.

El Metro Transit

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El Metro Transit began using CNG in 1997 and during that time has increased its fleet size from 14 to 25 CNG buses. The buses are Nova with a Detroit Diesel Series 50 natural gas engines. Over the next 5 years, El Metro plans to expand its fleet by 10 new natural gas buses. The CNG buses travel an average of 200 miles per day. El Metro used approximately 278,000 gges of CNG in 2001 compared to 248,000 gallons of diesel.

With a total of 45 buses in its fleet, of which 25 operate on CNG, El Metro is one of the few transit fleets in Texas (including DART, the Fort Worth T, and Sun Metro) with the majority of its buses operating on an alternative fuel. El Metro operates its own on-site fueling station that has both time-fill and fast-fill capabilities.

Fort Worth Transit Authority

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The Fort Worth Transit (The T) has 158 vehicles in its AFV Fleet. These include fifty-six 35' to 40' transit coaches, fifty 30' transit coaches, and eight trolley replicas, all fueled with CNG. The T also has twenty-eight bifueled CNG/gasoline vans, and sixteen light duty trucks and vans, all bifueled with CNG/gasoline. The majority of these CNG vehicles are full size transit buses used for public transportation, and a small number of

CNG vehicles are used in their paratransit operation. Additionally, we operate a small number of CNG supervisor vans and maintenance department trucks.

All of the Fort Worth Transit's AFVs operate on CNG or are bifueled CNG/gasoline, and all are refueled at their on-site fueling facility. The Fort Worth T currently has 3 compressor skids that supply CNG to four refueling dispensers at their service station. A fourth compressor skid and four additional CNG dispensers are scheduled to be added this fiscal year.

The Fort Worth Transit began purchasing and operating CNG buses in 1990 under the direction of their General Manager and Executive Committee. The decision was based on the benefits of clean emissions of CNG engines compared to their diesel counterparts. The Fort Worth T remains committed to converting their fleet to near 100% AFVs within the next 2 years.

The use of AFVs has been a very positive experience for the Fort Worth T. CNG engine technology has improved dramatically over the last 10 years and keeping up with the changes has been an exciting challenge. The Fort Worth Transportation Authority is proud to be able to do their part in helping to clean the air in the Dallas-Fort Worth metroplex.

H.E.B. Food and Drug Company

Supermercados Internacionales HEB

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The story of H-E-B began almost 100 years ago in a tiny family shop in Kerrville, Texas. Today H-E-B serves families all over Texas and northern Mexico with more than 300 grocery stores, distribution centers in Texas and one being built in Monterrey, and

manufacturing plants. H-E-B has over 55,000 partners (employees) and is the eleventh largest grocery company in the United States.

H-E-B's commitment to excellence has made it one of the United States' largest independently owned food retailers. Yet H-E-B's success has not changed its commitment to giving the customer exceptional service, low prices and friendly shopping.

H-E-B has also made a commitment to be environmental stewards. We have adopted voluntary measures to save energy and water, prevent pollution and reduce waste. We aim to be the best in our industry at environmental compliance, voluntary pollution prevention and environmental stewardship. Our liquefied natural gas program is just one example.

H-E-B currently operates 22 tractors powered by liquefied natural gas and will be adding approximately 40 more over the next year. These vehicles are located in the Houston area. H-E-B maintains its own refueling site.

FuelMaker

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Mackie Automotive is an air-conditioned plant of half a million square fleet. The company operates a fleet of 48 forklifts and one floor sweeper. Concerns with indoor air quality led them to the use of natural gas. To fuel their natural gas equipment, Mackie has installed a 12-unit FuelMaker system, which has been in operation for approximately three years.
